



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

08/880,648 06/23/97 MENDOLIA G 027575-039

LM02/0728

RONALD L GRUDZIECKI  
BURNS DOANE SWECKER & MATHIS  
P O BOX 1404  
ALEXANDRIA VA 22313-1404

EXAMINER

CRAVER, C

ART UNIT

PAPER NUMBER

2744

DATE MAILED:

07/28/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/880,648

Applicant(s)  
Mendolia

Examiner  
Charles Craver

Group Art Unit  
2744



☒ Responsive to communication(s) filed on Jun 2, 1999

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-13 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-13 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2744

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabe, U.S.

Patent #5,832,079.

Concerning claims 1, 2, 8 and 10,

Rabe discloses a flip style cellular phone comprising:

a main housing (12);

a flip (16), pivotally mounted to the main housing by hinges (16H and 16H@, see also column 2 line 63 - column 3 line 1), the flip having a free end remote from the hinges;

a microphone (32) mounted in the main housing; and

an acoustic pipe or channel (26) extending from the free end of the flip to the hinged end to carry sound from said free end to said hinged end, wherein said channel has a sound inlet (24) at the free end of the flip, and wherein said channel partly extends along one of the peripheral edges of the flip (see figure 2 and element 28). Said channel or pipe is in acoustic communication with said microphone (see abstract), transmitting sound from the inlet to the microphone.

Art Unit: 2744

Rabe does not, however, expressly disclose that the acoustic channel extends entirely along one of the peripheral edges of the flip.

However, Rabe does disclose that the cavity can be made in "other shapes and types" (column 3 lines 44-47), including but not limited to conic section-shaped cavities. As would be obvious to one skilled in the art, a right triangle-shaped cavity extending from the hollow hinge to the sound inlet would extend entirely along a peripheral edge of the flip. It would have been obvious to one skilled in the art at the time the invention was made to incorporate such a cavity shape, as such a cavity would not have parted from the scope of the invention of Rabe.

Regarding claims 3 and 11, Rabe discloses a hollow hinge (16H@) connecting the acoustic channel to the microphone (column 3 lines 31-35).

Concerning claim 4, Rabe discloses an acoustic pipe providing a single acoustic pathway from the free end to the hinged end of the flip (see figure 2).

Further regarding claims 5, 9 and 12, Rabe disclosed above that the acoustic channel can be of "other shapes and types" (column 3 lines 44-47), which could construe an acoustic channel occupying the entire inside volume of the flip. An acoustic channel which occupies the entire inside volume of the flip, for example, would extend along the entire peripheral edge of the flip, as taught by claims 5 and 12, and would further be formed in the peripheral edge of the flip as taught by claim 9 of the present invention. Such a shape can be construed as anticipated by Rabe.

Regarding claim 6, Rabe disclosed above that said acoustic channel is in communication with said microphone.

Art Unit: 2744

Regarding claims 7 and 13, Rabe discloses one or more hollow hinge connections separably connectable acoustically to the acoustic channel (column 5 lines 31-40). Two hinge connections, for example, would offer two acoustic paths to transmit sound to the microphone. Further, Rabe discloses that the "microphone may be mounted in any convenient place within the radiophone unit by merely repositioning and/or extending the interconnecting acoustic path." (column 5 lines 4-6) Thus the microphone could be placed closer to one acoustic hinge opening than another of the at least one hinge pins, making one of the aforementioned two acoustic paths of a differing length than the other.

### *Response to Arguments*

1. Applicant's arguments filed June 2 1999 have been fully considered but they are not persuasive.

In response to applicant's argument that Rabe teaches away from placing an acoustic pipe extending entirely along a peripheral edge of a flip, in that it is impossible to place an acoustic horn entirely along such an edge; nowhere does Rabe disclose such a statement of impossibility. Although Rabe discloses a centrally located horn that grows in cross section exponentially as an exemplary embodiment of the invention, Rabe's disclosure of "other shapes and types" clearly would motivate one skilled in the art to use other shapes, such as a triangular shaped cavity as disclosed in the rejection of claim 1 above. Lastly, although Rabe does not expressly disclose motivation to change the shape of the interior cavity so as to maintain thinness of the flip, this is

Art Unit: 2744

because the interior cavity, no matter the shape, maintains the same interior height; therefore, any shape construed by the disclosure of Rabe would maintain the same flip thinness. The examiner reminds the applicant that such a statement of motivation is not present in the claimed invention, and although claims are read in light of the specification, the specification is not read into the claims.

*Conclusion*

**4. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**

(703) 305-9508 (for informal or draft communications, please label "PROPOSED"  
or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).


**5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Craver whose telephone number is (703) 305-3965.**

Art Unit: 2744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost, can be reached on (703) 305-4778.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

C. Craver  
July 25, 1999

  
TRACY M. LEGREE  
PATENT EXAMINER

CC